

**STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS  
CONTAINING SAME, AND METHODS OF USE**

**ABSTRACT OF THE DISCLOSURE**

Clusters of plant genes that are regulated in response to one or more stress conditions are provided, as are isolated plant stress-regulated genes, including portions thereof comprising a coding sequence or a regulatory element, and to consensus sequences comprising a plant stress-regulated regulatory element. In addition, a recombinant polynucleotide, which includes a plant stress-regulated gene, or functional portion thereof, operatively linked to a heterologous nucleotide sequence, is provided, as are transgenic plants, which contain a plant stress-regulated gene or functional portion thereof that was introduced into a progenitor cell of the plant. Also provided are methods of using a plant stress-regulated gene to confer upon a plant a selective advantage to a stress condition, methods of identifying an agent that modulates the activity of a plant stress-regulated regulatory element, and methods of determining whether a plant has been exposed to a stress.